

SVETLANA TECHNICAL DATA
812A
Medium-Mu Power Triode

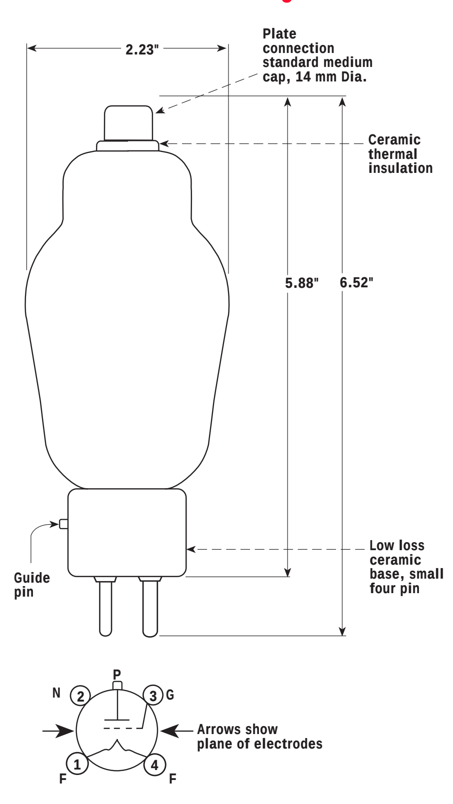
The Svetlana™ 812A is a high perveance, easy to drive medium-mu triode closely modeled after the original RCA design. Improvements include a low loss easy to clean ceramic base and a cermic thermal insulator under the plate cap. The Svetlana 812A may be used as an AF power amplifier, modulator or RF amplifier at full ratings to 30MHz and reduced ratings to 100MHz.
The Svetlana 812A is designed to be a direct replacement for any 812A now in service.

Characteristics

Electrical			
Filament:			*Thoriated-tungsten*
Voltage (AC or DC)		*6.3 ± 0.3*	*V*
Current		*4*	*A*
Amplification factor (average)			*29*
Maximum frequency for full ratings		*30*	*MHz*
Interelectrode capacitances:			
Grid to filament		*5.4*	*pF*
Plate to filament		*0.77*	*pF*
Grid to plate		*5.5*	*pF*
Mechanical			
Cooling			*Convection*
Base			*Ceramic standard 4 pin*
Socket			*Svetlana SK4A*
Plate connector			*PC1A or equivalent*
Operating position-			*Vertical or Horizontal (pins 1 & 4 in vertical plane)*
Maximum dimensions:			
Diameter			*57 mm (2.23 in.)*
Length			*166 mm (6.52 in)*
Net weight (average)			*113 gm (4 oz)*
Maximum ratings	**CCS****	**ICAS*****	
DC plate voltage	*1250*	*1500*	*V*
Maximum-signal DC plate current	*175*	*175*	*mA*
Plate Dissipation	*45*	*65*	*W*
Grid Dissipation	*7*	*7*	*W*
DC grid voltage	*-200*	*-200*	*V*

*** Continuous commercial service*
**** Intermittent commercial and amateur service*

Svetlana Outline drawing



Frequency (MHz)	Plate Voltage and plate input
60	89%
80	70%
100	55%

At maximum CCS ratings, the plate shows no color. At ICAS ratings, the plate shows barely perceptible red color.



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Typical Operation, Class C (Frequencies to 30 MHz)	CCS**	ICAS***	
DC plate voltage	*1250*	*1500*	*V*
DC grid voltage	*-90*	*-120*	*V*
Peak grid voltage	*200*	*240*	*V*
Plate current	*140*	*170*	*mA*
DC grid current	*30*	*30*	*mA*
*Grid drive power**	*5.4*	*6.5*	*W*
*Power output **	*130*	*190*	*W*
Plate dissipation	*45*	*65*	*W*

Typical Operation, Class B values for 2 tubes (AF Power Amplifier and Modulator)			
DC plate voltage	*1250*	*1500*	*V*
DC grid voltage	*-40*	*-48*	*V*
Peak grid voltage	*225*	*270*	*V*
Plate current	*260*	*310*	*mA*
Zero signal plate current	*22*	*28*	*mA*
*Grid driving power**	*3.5*	*5*	*W*
*Power output **	*235*	*340*	*W*
Effective load resistance	*12,200*	*13,200*	*ohms*

** approximate*
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